

DETAILED ACTION

Examiner's amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with *Aaron Bourgeois (57,936)* on 2 August 2010.

The application has been amended as follows:

IN THE CLAIMS

Claims 1 through 18: Cancelled.

Claim 32: A computer readable storage medium comprising a tangible physical hardware structure having computer executable instructions that are executable by a computer to"

Reasons for Allowance

2. Claims 19, 21-32, 34, 35 and 37 are allowed.
3. The following is an examiner's statement for reasons for allowance: The prior art of record Bruck et al (U.S. 6,801,949 B1), Rizvi (U.S. 6,490,610 B1) and Hart (U.S.

6,154,765) fails to teach the invention as claimed. For instance prior art was not found to teach "In a distributed computing system comprising a server cluster and a client computer, wherein the server cluster includes a first server and a second server, and wherein the client computer includes a client application, a cache, and a client-side network access module (NAM) by which the client application communicates with the server cluster, a method for providing seamless fail-over connectivity between the client computer and the server cluster, the method comprising: receiving, at the client-side NAM, a request from the client application comprising a server name and a cluster name of the server cluster; sending, by the client-side NAM, a first Server Resolution Protocol request in user datagram protocol (UDP) to the server cluster requesting first connection information for a server associated with the server name; receiving, at the client-side NAM, a first Server Resolution Protocol reply comprising the connection information of the first server, wherein the connection information of the first server comprises a port number for a Virtual Interface Architecture (VIA) port of the first server; establishing, by the client-side NAM, a first connection between the client application and the VIA port of the first server in the server cluster using a VIA protocol; providing, by the client-side NAM, seamless fail-over connectivity from the first server to the second sever in the server cluster in a manner transparent to the client application, when the server cluster automatically switches operation from the first server to the second server, wherein providing seamless fail-over connectivity by the client-side NAM comprises: detecting, by the client-side NAM, a failure of the first connection between the first server in the server cluster and the client application, when the server cluster

automatically switches operation from the first server to the second server; sending, by the client-side NAM, a second Server Resolution Protocol request in UDP to the server cluster requesting connection information for a new working server in the server cluster associated with the server name and the cluster name of the server cluster; receiving, by the client-side NAM, a second Server Resolution Protocol reply from the server cluster comprising connection information of the second server as the new working server, wherein the connection information of the second server comprises a port number for a VIA port of the second server; caching, by the client-side NAM, the second Server Resolution Protocol reply in the cache of the client computer such that the cache contains a mapping between the connection information of the second server and the cluster name and the server name; and establishing, by the client-side NAM, a second connection between the client application and the VIA port of the second server using the VIA protocol based on the connection information of the second server, wherein the server cluster does not provide fail-over support to re-direct a request from the client application from the first server to the second server when the server cluster automatically switches operation from the first server to the second server.

4. Dependent claims further limit the independent claims and are considered allowable on the same basis as the independent claims as well as for further limitations set forth. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASGHAR BILGRAMI whose telephone number is (571)272-3907. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L.M. Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. B./
Examiner, Art Unit 2443

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/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2443